Aquaculture Negative – Table of Contents

Summary

This packet offers answers to the specific claims made in the affirmative advantage and solvency contentions.

Against Solvency, you will find a collection of very powerful turns that show that Aquaculture hurts the environment and ocean biodiversity. Additionally, the plan will face logistical and bureaucratic hurtles that will deter investors.

Against the overfishing advantage, you will find arguments that world fish populations are recovering and that offshore fish farming hurts biodiversity.

Against the food security advantage, you will find arguments that aquaculture doesn't address the larger set of factors that create world hunger.

Against the trade deficits advantage, you will find arguments that trade deficits aren't harmful to the US economy.

Solvency Turns

Fishing

Aquaculture bad alternative to wild fishing
PETA 14
[People for the Ethical Treatment of Animals, “Aquaculture.” http://www.peta.org/issues/animals-used-for-food/factory-farming/fish/aquafarming/#ixzz36RBxjJEN“Aquafarming, Accessed 7/3/14]
And while aquafarmers like to tout aquaculture as an alternative to depleting wild fish populations, **many of the fish species they farm are predators**, like salmon and shrimp**, and are fed ocean fish. It takes 5 pounds of ocean fish to produce 1 pound of farmed fish.**

Ethics

Aquaculture immoral—steals from the impoverished and hurts local economy
TWN 14
[Third World Network, "The Negative Impacts of Aquaculture" http://www.twnside.org.sg/title/pact-ch.htm. Accessed 7/3/14]
One of the basic tenets of aquaculture is to increase food production. The important question is, for whom? **Aquaculture, which has been hailed as THE answer to cheap production food** for the millions in the poor Third World countries **has instead been utilised to produce luxury delicacies** such as fat prawns **for the consumption of the** already **over-fed,** affluent **and wasteful societies in developed countries such as** Japan and **US.**¶It has **also brought a huge amount of profits to industrialists and investors** who deal with high-technology gadgetry in pellet fishfood and vaccine research and production, ice production, processing, transport, etc.¶Meanwhile, **the small-time fishermen and** fish **farmers lose out and the diet of local people gets impoverished**. In Malaysia, tiger prawn is sold for about 32 ringgit (US$13) per kg, double the cost of a kg of beef, out of reach for the general local population.¶It is ironic then, that most of the world's top suppliers and exporters of shrimps and fish are countries where most of its own people are undernourished: Thailand, Philippines, Indonesia and India.

Poisoned Food

Consumption of organisms from aquaculture causes poisoning
TWN 14
[Third World Network, "The Negative Impacts of Aquaculture" http://www.twnside.org.sg/title/pact-ch.htm. Accessed 7/3/14]
Aquaculture, which uses water from the river, estuary, coastal area, **is prone to** external **pollution and the produce** (fish, prawns) **can be a health risk if consumed.**¶ A study done by the national university of Malaysia on a tiger prawn project which uses water from the Inanam River estuary in Sabah is a case in point. Light industries (workshops, etc), pig and poultry farms located near the estuary are sources of pollution. The water of the Inanam River and prawn ponds was monitored. Dissolved cobalt and lead were found to be higher than the recommended values of 0.05 mg/l. Suspended solids were found to be higher than the maximum value recommended (40 mg/l) by WHO.¶ **There is concern over the safety/edibility of prawns and fish produced under contaminated environment. Fear of heavy metal bioaccumulation and lead poisoning affecting human health is not an exaggeration.**-TWR

Disease

Fishes in aquafarms have high mortality rates, disease, infestations, and deformities
PETA 14
[People for the Ethical Treatment of Animals, "Aquaculture." http://www.peta.org/issues/animals-used-for-food/factory-farming/fish/aquafarming/#ixzz36RBxjJEN"Aquafarming, Accessed 7/3/14]
In intensively **crowded aquafarms, small fish are bullied and killed by larger fish**, **so fish are** continually **sorted** to make sure that faster-growing individuals are moved to the appropriate size grouping.
At each sorting, **they are netted or pumped out of** their **tanks and dumped onto** a series of **bars and grates** with varying space gaps to divide them by size and redistribute them into different netted cages or tanks; **small fish slip through the small grates** while **larger fish fall through the larger gaps**. **This practice**, called "grading," is very stressful and **results in painful scrapes and a loss of protective scales, leaving the animals vulnerable to disease. High mortality rates, disease, and parasite infestations are common. Deformities and stress-related injuries are** also a **regular** occurrence; **on some farms**, as many as **40 percent of the fish are blind—a problem that is not addressed because blind fish net the same profit for farmers.**

Contamination from aquafarms spreads to ocean—leads to disease
PETA 14
[People for the Ethical Treatment of Animals, "Aquaculture." http://www.peta.org/issues/animals-used-for-food/factory-farming/fish/aquafarming/#ixzz36RBxjJEN"Aquafarming, Accessed 7/3/14]
Contaminants from ocean-based **aquafarms** (fish excrement, uneaten chemical-laden food, and swarms of parasites) **spread to the surrounding ocean, and the rampant disease inside the cages is passed on to ocean fish in the area,** in some cases increasing the incidence of sea lice a thousandfold.¶ **These parasites eat at the fish, causing their scales to fall off and creating large sores.** In severely crowded conditions, lice often eat down to the bone on fish's faces. This is so common that fish farmers have taken to calling it the "death crown."

Aquaculture organisms are susceptible to diseases, leads to economic loss
TWN 14
[Third World Network, "The Negative Impacts of Aquaculture" http://www.twnside.org.sg/title/pact-ch.htm. Accessed 7/3/14]
In aquaculture, organisms are immersed in water, hence they **are more intensely exposed to the environment** as compared to terrestrial animals. Thus, **aquatic animals are more sensitive to pollution** whether chemical or their own excrement. And as in the Green Revolution, many problems have cropped up with regard to diseases. **Out of greed to make maximum profits**, **intensive aquaculture utilise** a dense stocking rate **(overcrowding**). Studies have shown that dense stocking rate **may induce stress problems and increase susceptibility to diseases**. **Overcrowding leads to poor water quality due to decreased oxygen level, high accumulated metabolic products and excrement, rapid growth and transmission of noxious parasites, micro-organisms and pathogens.** A University Science Malaysia (USM) scientist said that **many fish species in aquaculture** such as siakap (giant sea perch), kerapu (grouper), and jenahak (golden striped snapper) **are threatened by diseases which can result in high mortality rate**. **Fish diseases** such as epizootic ulcerative syndrome (EUS) and vibriosis with symptoms such as boils on the skin, tail-rot, etc. started spreading in the early 1980s in Indonesia, Malaysia, Thailand, and the Philippines, **incurr**ing **a great loss to fish farmers**.

Disease leads to millions of dollars in economic loss—empirics prove
Meyer 91
[F P, "Aquaculture disease and health management." J ANIM SCI 1991, 69:4201-4208. http://www.journalofanimalscience.org/content/69/10/4201 accessed 7/6/14]

Losses incurred by fish farmers are related ¶ to disease, floods, oxygen depletions, predation, chemical poisoning, theft, and miscellaneous causes. **Disease is by far the most ¶ significant factor**. **Estimates of dollar losses ¶ due to disease are conservative figures** because ¶ fingerling fish have a significantly higher ¶ value per unit of weight than food-sized fish. ¶ For example, fingerling trout are priced at ¶ $10.20/kg, compared to $2.40/kg for food- ¶ sized fish (USDA, 1989). Also**, most economic ¶ loss estimates fail to include the cost of labor, ¶ interest, lost production time, expenses of ¶ treating and disinfecting, and restocking**. ¶ **The Catfish Journal** (Anonymous, 19%) ¶ **reported that 115 million catfish were lost to ¶ disease during the first half of 1989. About ¶ 90% of the losses (104 million) were among ¶ fry and fingerlings**. Nearly 4.54 x lo6 kg of ¶ catfish fry and fingerlings died. **They had a ¶ minimum value of $8 million. Food fish losses ¶ totaled 2.04 x 106 kg during this time and had ¶ a market value of $3.6 million**. **If the same ¶ rates of loss continued in the second half of the ¶ year, the total cost of losses to disease in 1989 ¶ would reach $23 million.** ¶ The catfish industry reported that 39% of ¶ the 100 million fish lost in the 1988 produc- ¶ tion season were killed by disease (Anony- ¶ mous, 1989). In economic terms, at $1.75/kg, ¶ the 6.2 x 106 kg of catfish killed by disease in ¶ 1988 represented a minimum loss of nearly ¶ $11 million. ¶ The trout industry reported losses during ¶ 1988 of 20.7 million fish, 50% of which were ¶ lost to disease (USDA, 1989). The 1.04 x 106 ¶ kg of trout lost to disease cost producers a ¶ minimum of $2.5 million (at $2.40/kg). ¶ No economic data are available concerning ¶ the extent of losses incurred in crustacean and ¶ molluskan culture systems¶

Disease outbreak constrain production and trade—hurt economic development
FAO 97
"Fisheries Department Review of the State of World Aquaculture Health Management in Aquaculture" http://www.fao.org/docrep/003/w7499e/w7499e23.htm. Fisheries and Aquaculture Department. Accessed 7/6/14]
Disease outbreaks are being increasingly recognized as a significant constraint to aquaculture production and trade and are affecting economic development of the sector in many countries of the world. Disease is now considered to be the most limiting factor in the shrimp culture sub-sector. Some figures are available on direct economic losses which indicate the significance of the problem, although social and other related impact, such as trade and employment issues, chemical and drug use, and environmental costs, has never been properly quantified. **Estimates of economic losses suggest that developing countries in Asia lost at least US$1.4 thousand million due to diseases in 1990 alone. Since then, losses have increased**. Reports from China suggest losses in 1993 of US$1 thousand million due to shrimp viral disease outbreaks (ADB/NACA, in press). A 1995 estimate suggests that **aquatic animal disease and environment-related problems may cause annual losses to aquaculture production in Asian countries of more than US$3 thousand million per year** (ADB/NACA, in press). According to a recent World Bank report, global losses due to shrimp disease are around US$3 thousand million and the Bank recommends investment of US$275 million in shrimp disease research over the next 15 years (Lundin, 1996).

Fish disease hinders food production—hurts economy and food security
JAE 12
["Disease threatens aquaculture in developing world" Journal of Applied Ecology doi: 10.1111/1365–2644.12017 (12/5/12). http://www.scidev.net/global/biodiversity/news/disease-threatens-aquaculture-in-developing-world.html. Accessed 7/6/14]
[CAIRO] **Disease may challenge the ability of fish farming to feed the growing human population even as wild fish stocks decline and climate change hampers food production from**

other sources, a study shows.¶Aquaculture is the fastest growing food sector in the world, according to the UN Food and Agriculture Organization, with 90 per cent of production coming from the developing world, where it makes a significant contribution to many nations' economies. **But fish and shellfish disease will** increasingly **present a major problem for aquaculture in tropical countries**, many of which rely on this form of food production for dietary protein, according to the study, which calls for better disease-response strategies and infrastructure in developing countries.¶ The study, published in February's issue of the Journal of Applied Ecology, is the first analysis of the global pattern of disease outbreaks in aquaculture, according to its lead author, Tommy Leung, a lecturer in parasitology and evolutionary biology at the University of New England, Australia. ¶By examining published reports of disease-induced mortalities in commercial aquaculture, it found that outbreaks were more deadly and progressed quicker in the tropics than in temperate regions, after controlling for differences in veterinary and disease-reporting infrastructure.¶Leung says the results show **that outbreaks** in tropical regions can **wipe out entire fish stocks in a** relatively **short space of time, with devastating consequences for both the economy and food security.**

Chemicals

Aquaculture farms release chemicals—destroying ecosystems and killing marine life
PETA 14
[People for the Ethical Treatment of Animals, "Aquaculture." http://www.peta.org/issues/animals-used-for-food/factory-farming/fish/aquafarming/#ixzz36RBxjJEN"Aquafarming, Accessed 7/3/14]
Fish farms, or "**aquafarms**," **discharge waste, pesticides, and other chemicals** directly into ecologically **fragile coastal waters, destroying local ecosystem**s. And **aquaculture farms that raise fish directly in fenced-in areas of natural waters kill off thriving natural habitats by overloading them far beyond their capacity**. **Waste from the excessive number of fish can cause huge blankets of green slime on the water's surface, depleting oxygen and killing much of the life in the wate**r. In Brazil, destruction caused by aquaculture changed the local climate so much that some aquaculture operations have been forced to shut down.

Fishing Industry

Aquaculture leads to negative consequences for ocean ecosystem—hurts fishing industry
TWN 14
[Third World Network, "The Negative Impacts of Aquaculture" http://www.twnside.org.sg/title/pact-ch.htm. Accessed 7/3/14]
Offshore aquaculture could hold negative consequences for commercial and recreational fishing in the Gulf of Mexico. For example, **fish waste, uneaten fish feed, and any antibiotics that may be used to maintain the health of fish crowded into the pens or chemicals to try to keep organisms from growing on the nets and cages can pollute the seafloor and surrounding ocean ecosystem**. **Little is known about the assimilative capacity of the marine environment for these pollutants**," concludes a new report commissioned by the Woods Hole Oceanographic Institution. "**Pollution from a greatly expanded industry could have significant effects locally and regionally**." 5

Fishing industry key to US econ
Sobeck 4/29
[Eileen, NOAA's Assistant Administrator for Fisheries "Fishing's Impacts Ripple across the Broader Economy" Fisheries Jobs National Oceanic & Atmospheric Administration. http://www.commerce.gov/blog/2014/04/29/fishing%E2%80%99s-impacts-ripple-across-broader-economy. Accessed 7/7/14]
1.7 million jobs supported by U.S. commercial and recreational fishing industries in 2012
Guest blog post by Eileen Sobeck, NOAA's Assistant Administrator for Fisheries
Fishing is big business in the United States. From commercial fisheries to recreational and charter boat business owners**, fishing contributes to the United States' economy and supports jobs. According to new reports issued today by NOAA Fisheries, we continue to see positive economic impacts from commercial and recreational U.S. fisheries as well as progress in rebuilding our nation's fish stocks.¶**Between 2011 and 2012 alone, U.S. commercial and recreational saltwater fishing generated more than $199 billion in sales impacts, contributed $89 billion to gross domestic product, and supported 1.7 million jobs.¶Breaking down the numbers a little more, the value chain of the commercial fishing industry—harvesters, processors, dealers, wholesalers, and retailers—generated $141 billion in sales, $39 billion in income and supported 1.3 million jobs in 2012.¶The recreational fishing sector generated $58 billion in sales, $19 billion in income, and supported 381,000 jobs in 2012.¶Surprised? You shouldn't be**. The United States is a world leader in responsibly managed fisheries, and there's no doubt that our approach to management is directly tied to the positive economic impacts across the broader U.S. economy in the last few years** as we see in the Fisheries Economics of the U.S. 2012 report.

No solvency – Multiple barriers to development

[ ] Removing regulatory barriers will not lead to industry growth – other concerns like environmental and economic risks will deter investors.

Fletcher, researcher at the Marine Affairs Institute at the University of Rhode Island, 2007
(Kristen, "Law & Offshore Aquaculture: A True Hurdle or a Speed Bump," Online: http://www.oceanrenewable.com/wp-content/uploads/2007/03/law-and-offshore-aquaculture.pdf)

Bills introduced in recent years have noted that **even though the** National **Aquaculture Act has been reauthorized** through 2007, **the U.S. has still "not adequately address[ed]** emerging national issues such as **offshore aquaculture development, water quality concerns, invasive species impacts, and a coordinated siting, permitting, and licensing process**." These bills call for the following: 1. ensuring the sustainable development of production where aquaculture is economically viable, environmentally feasible, and culturally acceptable; 2. analyzing the supply and demand for domestic and exported aquacultural products to enable the United States to compete in the global marketplace; 3. increasing the availability of new technical and scientific information that supports aquacultural development; 4. with regard to marine aquaculture, providing encouragement and identification of marine zones favorable to aquaculture that take into consideration desired environmental conditions and potential use conflicts; and, 5. establishing a goal of a 5-fold increase in United States aquacultural production by 2025. **The question remains whether a change** to the Magnuson-Stevens Act **to clarify the permitting of aquaculture** facilities as distinct from commercial fishing operations and the implementation of the EPA rule regarding discharges from such facilities **will magically pave the way for the development of an offshore aquaculture industry** in the U.S. As difficult as implementing new discharge rules and amending the nation's fisheries statute might seem, the **development of offshore aquaculture** in this country **faces even greater hurdles**. Even with a unified governmental approach**, the development of an industry is challenging at best; without a unified approach, the questions of economic and environmental feasibility might represent those greater hurdles**.

No solvency – Multiple barriers to development

[ ] There are too many start-up costs for offshore operations – this will push companies to pursue unsafe and destructive farming practices.

Naylor, professor of environmental Earth system science at Stanford, 2012
(Rosamond, "Searching for Solutions in Aquaculture: Charting a Sustainable Course," Online: http://woods.stanford.edu/sites/default/files/files/searching%20for%20solutions%20in%20aquaculture.pdf)

Offshore systems fail to fully resolve many of the environmental concerns associated with conventional coastal systems, including the risk of escaped fish interbreeding or competing for resources with wild fish, aggregation of other animals around offshore structures, and disease and parasite transmission to wild fish (reviewed in References 122 and 128). These problems, and the effects of releasing even diluted quantities of uneaten feed, wastes, and therapeutants, are likely to be reduced when farms move away from the coast and into oligotrophic environments, but to an uncertain degree (128). Although offshore seaweed and shellfish operations do not require feed (7, 123), **resource efficiency remains an issue with offshore finfish operations because the high cost of building and operating offshore currently favors production of high-value carnivorous fish** (11, 128). **The high cost of production is also likely to rely on economies of scale for profitability, and thus favor large-scale operations or suites of operations that have not been evaluated for their impacts on marine ecosystems. Moving offshore increases the distances that support vessels must travel to reach aquaculture farms and therefore increases the fuel use and carbon intensity of production.** Finally, the cost of labor may increase as managing offshore vessels and equipment requires skilled employees.

No solvency – Investors aren't interested in aquaculture

[ ] Investors won't be willing to jump start the US aquaculture industry – they think the rest of the world is already ahead of us and that operations will be too risky.

Center for the Study of Marine Policy, 2001
(Center for the Study of Marine Policy at the University of Delaware, "DEVELOPMENT OF A POLICY FRAMEWORK FOR OFFSHORE
MARINE AQUACULTURE IN THE 3-200 MILE U.S. OCEAN ZONE," Online: http://www.lib.noaa.gov/retiredsites/docaqua/reports_noaaresearch/sgeez1final.pdf)

Firms will have to compete in the global market against established firms working in countries **that may have** substantial **subsidies, lax regulations or cheap labor** costs. They will also have to compete against firms that have lower costs because they are operating in nearshore areas where both capital and operating expenses are likely to be lower. As the industry develops, it will be critical to develop suitable plant-based dietary protein supplements to replace limited and expensive fish meal and fish oils. **Availability of capital has been a problem for** the **aquaculture industry** for years **and will continue to be a problem for firms planning to work offshore.** Banks and **financial institutions typically demand** that **crop ownership be well defined** and that all permits be obtained in advance. **They will** also **require security of tenure** in the form of long-term, renewable leases. For the lease itself to have any value as collateral, there must usually be provisions to allow transfer of the lease to another firm using similar techniques and technologies. **Banks typically require a track record of profits and** significant **prior experience** in the field. **Both of these are in short supply**. **Venture capitalists are attracted to low-risk ventures that offer significant returns over short timeframes. Aquaculture rarely fits these demands**. **Technological challenges** also **significantly affect the industry**. There is still much to be learned about the severity of the physical forces in these operating environments, and the tackle required to withstand these forces. As the industry develops, some of these questions will be resolved, but **the learning curve will be steep and the cost of knowledge may be high**. **The industry will** also **need to develop techniques to address the various environmental challenges** that will be encountered. Some of the concerns that plague nearshore growers (disease, escapement, predators, environmental degradation and use conflicts) may perhaps be diminished in the EEZ, but will still have to be addressed to the satisfaction of the permitting agencies, concerned environmental groups, and the public.

No solvency – Offshore farms aren't feasible

[ ] Logistical problems prevent offshore aquaculture development – harsh weather, expensive technology, and high transportation costs make operations impractical.

Food & Water Watch, 2012
(NGO derived of former members of Public Citizen, "Top 10 Problems," Online: http://www.foodandwaterwatch.org/common-resources/fish/fish-farming/offshore/problems/)

As discussed in the following profile of fish farms, factory **fish farming comes with** a host of **economic and feasibility challenges**. To date, **no U.S. operation has shown it can be used to consistently raise healthy crops of fish and guarantee income**. The four **facilities** profiled in the original *Fishy Farms* report (2007) **have faced major setbacks**. The Atlantic Marine Aquaculture Center has lost funding and halted its open oceans fish farming demonstration. The owner of **Snapperfarm shut down** operations in Puerto Rico **after finding** that **it could not expand**, **which the company blamed** partly **on U.S. regulations**. **Kona Blue Water Farms**, failing to secure permission to expand, **was forced to cut staff** and has sold its cages in Hawaii to another company, although it continues to be heavily involved in the operation. It recently lost two cages that it was testing for production in federal waters. And finally, **Hukilau Foods**, once known as Cates International, **has filed for bankruptcy**. An article in an industry publication discussing the difficulties faced by two operations in Hawaii found that "**Hawaii and the U.S. government have been generous with support** – financial and otherwise – for both of these fledgling offshore operations. So, you've got to ask yourself: **if offshore can't make it there, can it make it anywhere in the U.S.?"** The **international community has** also **noted the difficulties of offshore aquaculture**. A report by the Food and Agriculture Organization of the United Nations noted that **offshore aquaculture means higher risk of fish escapes; high transportation costs; difficulty in** approaching cages during **severe weather conditions**; **deeper** [and more dangerous] **operational routines** for divers; **and more expensive** cages, mooring **systems**, and nets.

Advantage Attacks

[ ] Recent reports show US fish populations are recovering – effective management by the government has protected species from overfishing.

Plumer, editor of Vox Magazine and former environmental correspondent for Huffington Post, 2014
(Brad, "How the US stopped its fisheries from collapsing," *Vox.com*, May 8, Online: http://www.vox.com/2014/5/8/5669120/how-the-us-stopped-its-fisheries-from-collapsing)

We hear a lot of grim stories about overfishing and the decline of fisheries around the world. Bluefin tuna is vanishing. Chilean sea bass is dwindling. Pretty soon, it sometimes seems like, all

that'll be left is the jellyfish. So **it's worth highlighting a country that has actually done a lot to curtail overfishing and rebuild its fisheries in the past decade — the United States**. **Back in the 1980s and '90s, many fisheries in the US were in serious trouble. Fish populations were dropping sharply**. Some of New England's best-known groundfish stocks — including flounder, cod, and haddock — had collapsed, costing the region's coastal communities hundreds of millions of dollars. **But the picture has improved considerably in the last decade, thanks in part to stricter fishing regulations**. Last week, the National Oceanic and Atmospheric Administration (NOAA) released its annual fisheries update for 2013 — and the news was encouraging. Yes, **progress has been uneven.** About one-fifth of assessed stocks are still overfished. **But on the whole, US fisheries are steadily recovering.** Back **in 1999, NOAA listed 98 stocks as "overfished." Today, that's down to 40. What's more, 34 previously depleted fish stocks have now been "rebuilt" — meaning that they've rebounded** to a level that supports the maximum sustainable yield. Those numbers improved again between 2012 and 2013: **This rebound has been a boon to the fishing industry: US commercial fishermen caught 9.6 billion pounds of seafood in 2012, the second highest total in more than a decade** (2011 was the highest year). The rebound in US fisheries was also noted last year in a separate study by the Natural Resources Defense Council, which studied 44 key fish stocks that had been seriously depleted and found that about 64 percent showed significant signs of recovery.

US fisheries are recovering

[ ] Fisheries and oceans are recovering – recent studies show that most fish populations off the United States' coasts are rebuilt and economically productive.

Hilborn, Professor of Aquatic and Fishery Sciences at the University of Washington, 2010
(Ray, "Apocalypse Forestalled: Why All the World's Fisheries Aren't Collapsing," November, Online: http://www.atsea.org/doc/Hilborn%202010%20Science%20Chronicles%202010-11-1.pdf)

The results were published in Science in 2009 (Worm et al. 2009), and showed that, **while the majority of stocks were still below target levels, fishing pressure had been reduced in most ecosystems** (for which we had data) **to below the point that would assure long-term maximum sustainable yield of fish from those ecosystems. About 30 percent of the stocks would currently be classified as overfished — but**, generally, **fishing pressure has been reduced enough that all but 17 percent of stocks would be expected to recover to above overfished thresholds** if current fishing pressure continues. **In the United States, there was clear evidence for the rebuilding of marine ecosystems** and stock biomass. **The idea that 70 percent of the world's fish stocks are overfished or collapsed and that the rate of overfishing is accelerating** (Pauly 2007) **was shown** by Worm et al. (2009) and FAO (2009) **to be untrue**. The Science paper coming out of the NCEAS group also showed that **the success in reducing fishing pressure had been achieved by a broad range of traditional fisheries management tools** — including **catch** and- effort **limitation, gear restrictions and temporary closed areas**. Marine protected areas were an insignificant factor in the success achieved.

Other countries exploit fisheries

[ ] The affirmative can at best only protect US fish stocks – the global scale of overfishing means national solutions will fail to protect biodiversity.

Plumer, editor of Vox Magazine and former environmental correspondent for Huffington Post, 2014
(Brad, "Just how badly are we overfishing the oceans?," *Huffington Post*, October 29, Online: http://www.washingtonpost.com/blogs/wonkblog/wp/2013/10/29/just-how-badly-are-we-overfishing-the-ocean/0/)

The real question is whether these success stories are the exception rather than the rule. Pitcher and Cheung argue that **the fish stocks analyzed** in that 2009 paper **make up just 16 percent of the global catch — and are mostly confined to well-managed fisheries in richer countries. By contrast, more than 80 percent of the world's fish are caught in the rest of the world**, in places like Asia and Africa. While data here is patchier, **many of the nations in these regions are far less likely to follow the** U.N.'s **Code of Conduct for Responsible Fisheries, and evidence suggests that "serious depletions are the norm"** here: Correlation of compliance with the FAO (UN) Code of Conduct for Responsible Fisheries (on a scale of zero to ten) with the UN Human Development Index for 53 countries, representing 95% of the world fish catch. Correlation of compliance with the FAO (UN) Code of Conduct for Responsible Fisheries (on a scale of zero to ten) with the UN Human Development Index for 53 countries, representing 95% of the world fish catch. **"It all depends where you look**," Pitcher said in an interview. **"There are a few places where fisheries are doing better: The U.S., Australia, Canada, Norway. But those are relatively rare. In most places, the evidence suggests that things are getting worse." Given that the United States imports 91 percent of its seafood, that's an important caveat. In theory, the rest of the world could adopt stricter measures to make their fisheries more sustainable**, such as catch limits, careful marine planning, and a crackdown on illicit fishing. Boris Worm and Trevor Branch have suggested that particular attention should be paid to "fishing-conservation hotspots" around the world — regions that depend heavily on fishing livelihoods and have lots of biodiversity but are nonetheless badly managed. **Yet many low-income countries still lack the resources to monitor their fisheries. And even richer nations struggle to enforce the laws they have**: In Europe, regulators have consistently set lax fishing quotas — in part due to lobbying from the fishing industry. ("Europe is not one of the places that's doing well," says Pitcher, "with a few exceptions like Norway.") **Meanwhile, as climate change and ocean acidification disrupt ecosystems in unpredictable ways, regulating fisheries properly may become even more difficult. "Attempts to remedy the situation need to be urgent, focused, innovative, and global**," the paper concludes. **But that's harder than it sounds**.

Other factors kill fish – pollution

[ ] Overfishing is only one of many issues that impact ocean biodiversity – chemical runoff and plastic waste make long-term instability of ocean ecosystems inevitable.

Sielen, Senior Fellow at the Scripps Institution of Oceanography, 2013
(Alan, "The Devolution of the Seas: The Consequences of Oceanic Destruction," *Foreign Affairs*, November/December, Online: http://www.foreignaffairs.com/articles/140164/alan-b-sielen/the-devolution-of-the-seas)

The oceans' problems start with pollution, the most visible forms of which are the catastrophic spills from offshore oil and gas drilling or from tanker accidents. Yet as devastating as these events can be, especially locally, **their overall contribution to marine pollution pales in comparison to the much less spectacular waste that finds its way to the seas through rivers, pipes, runoff, and the air**. For example, **trash** -- plastic bags, bottles, cans, tiny plastic pellets used in manufacturing -- **washes into coastal waters or gets discarded by ships large and small. This debris drifts out to sea, where it forms** epic **gyres of floating waste, such as the infamous Great Pacific Garbage Patch, which spans hundreds of miles across** the North Pacific Ocean. The most dangerous pollutants are chemicals. **The seas are being poisoned by substances that are toxic, remain in the environment for a long time,** travel great distances, **accumulate in marine life, and move up the food chain.** Among the worst culprits are heavy metals such as mercury, which is released into the atmosphere by the burning of coal and then rains down on the oceans, rivers, and lakes; mercury can also be found in medical waste. Hundreds of new industrial chemicals enter the market each year, most of them untested. Of special concern are those known as persistent organic pollutants, which are commonly found in streams, rivers, coastal waters, and, increasingly, the open ocean. **These chemicals build up slowly in the tissues of fish and shellfish and are transferred to the larger creatures that eat them**. Studies by the U.S. Environmental Protection Agency have linked exposure to persistent organic pollutants to death, disease, and abnormalities in fish and other wildlife. **These pervasive chemicals can also adversely affect the development of the brain, the neurologic system, and the reproductive system in humans**.

Other factors kill fish – climate change

[ ] Collapse of fish stocks can't be avoided by reducing overfishing – climate change spells long-term issues for ocean biodiversity.

Sielen, Senior Fellow at the Scripps Institution of Oceanography, 2013
(Alan, "The Devolution of the Seas: The Consequences of Oceanic Destruction," *Foreign Affairs*, November/December, Online: http://www.foreignaffairs.com/articles/140164/alan-b-sielen/the-devolution-of-the-seas)

On top of all these problems, **the most severe impact of the damage being done to the oceans by climate change and ocean acidification may be impossible to predict. The world's seas support processes essential to life on earth. These include complex biological** and physical **systems**, such as the nitrogen and carbon cycles; photosynthesis, which creates half of the oxygen that humans breathe and forms the base of the ocean's biological productivity; and ocean circulation. Much of this activity takes place in the open ocean, where the sea and the atmosphere interact. Despite flashes of terror, such as the Indian Ocean earthquake and tsunami of 2004, the delicate balance of nature that sustains these systems has remained remarkably stable since well before the advent of human civilization. But **these complex processes both influence and respond to the earth's climate, and scientists see certain recent developments as red flags possibly heralding an impending catastrophe**. To take one example, **tropical fish are increasingly migrating to the cooler waters of the Arctic and Southern oceans. Such changes may result in extinctions of fish species, threatening a critical food source** especially in developing countries in the tropics. Or consider that **satellite data show that warm surface waters are mixing less with cooler, deeper waters. This reduction in vertical mixing separates near-surface marine life from the nutrients below, ultimately driving down the population of phytoplankton, which is the foundation of the ocean's food chain. Transformations in the open ocean could dramatically affect the earth's climate and the complex processes that support life both on land and at sea.** Scientists do not yet fully understand how all these processes work, but disregarding the warning signs could result in grave consequences.

Aquaculture hurts ocean biodiversity – disease

[ ] Aquaculture concentrates fish populations in one location – this facilitates disease spread and over-medication which harm local species.

Martinez-Porchas and Martinez-Cordova, 2011
(Marcel Martinez-Porchas, Departamento de Tecnología de Alimentos de Origen Animal, and Luis R. Martinez-Cordova, Departamento de Investigaciones Científicas y Tecnológicas de la Universidad de Sonora, "World Aquaculture: Environmental Impacts and Troubleshooting Alternatives," The Scientific World Journal, ed. E. Gilman and J. Kotta, 2011, online: http://www.hindawi.com/journals/tswj/2012/389623/)

(5) Ecological Impacts in Natural Ecosystems because of the Introduction of Exotic Species. The **negative impacts of the "biological contamination" for the introduction of exotic aquacultural species on the native populations have been well documented** [18, 38, 39]. **The main** reported **problems are the displacement of native species, competition for space and food, and pathogens spread**. To cite an example, **recent re- ports** have **revealed a parasite transmission** of sea lice **from captive to wild salmon** [40]. The authors of such study have hypothesized that "**if outbreaks continue,** then **local extinction is certain**, and a 99% collapse in pink salmon abundance is expected in four salmon generations." (6) Ecological Impacts Caused by Inadequate Medication Prac- tices. **Farmers** usually **expose their cultured organisms to medication regimes**, for different purposes such as avoiding disease outbreaks and improving growth performance. **How- ever,** monitoring **studies** have **detected low or high levels of a wide range of pharmaceuticals**, including hormones, ster- oids, antibiotics, and parasiticides, **in soils, surface waters, and groundwaters** [41]. **These chemicals have caused imbalances in the different ecosystems**. In particular, the use of hormones in aquaculture and its environmental implications have been scarcely studied.

Aquaculture hurts ocean biodiversity – wild catch

[ ] Aquaculture relies on wild-caught fish to supplement bred species – this makes destructive fishing practices inevitable.

World Wildlife Fund, 2008
(World Wildlife Fund, 'Aquaculture problems: Fish feed,' Feb 29, http://www.panda.org/about_wwf/what_we_do/marine/problems/aquaculture/fish_feed/index.cfm)

The failure of attempts to breed some species, such as tuna and eel, in captivity **has led to the relatively new phenomenon of farming wild-caught fish**. However, **this industry is having a devastating affect on wild populations**. **Tuna farming**, for example**, involves capturing wild tuna and then fattening them in cages**, mainly for exportation to Japan for sushi. Prior to 1995, very little bluefin tuna was farmed this way in the Mediterranean. But according to one report, 22,500 tonnes were farmed in 2004. **This has dramatically increased the amount of bluefin tuna caught each year from an already overexploited stock**. Some of the tuna caught for farming are juveniles - which will not be able to reproduce in the wild and renew the wild stocks. To make matters worse, tuna farming is officially considered as a "post-harvesting" practice rather than one based on direct capture, and thus avoids every regional and international rule set up to manage fisheries in the Mediterranean. At the same time, the farms benefit from EU subsidies for aquaculture. **This kind of fish farming has had a similarly devastating affect on wild bluefin tuna populations in southern Australia, as well as on European eel populations**.

Aquaculture hurts ocean biodiversity – runoffs

[ ] Aquaculture operations generate tons of dangerous chemicals – these contaminate local ecosystems.

World Wildlife Fund 2008
(World Wildlife Fund, 'Aquaculture problems: Fish feed,' Feb 29, http://www.panda.org/about_wwf/what_we_do/marine/problems/aquaculture/fish_feed/index.cfm)

While many aquaculture systems are closed with no harmful output, **open net cage fish** farms and land-based fish farms **can discharge significant amounts of wastewater containing nutrients, chemicals, and pharmaceuticals that impact on the surrounding environment**. For example, **the nutrients in unused fish feed and fish faeces can cause local algal blooms**, or eutrophication**. These blooms lead to reduced oxygen in the water, which in turn can lead to the production of ammonia, methane, and hydrogen sulphide, which are toxic to many aquatic species. Reduced oxygen can also directly kill marine life**. In addition, **a wide range of chemicals is currently used in the aquaculture industry**, mainly pharmaceuticals such as antibiotics and anti-fouling agents such as copper. **Some of these chemicals are toxic to molluscs and crustaceans, and little is known about their broader ecological implications**. In some areas, such as Southeast Asia and South America, frequent use of medications has led to increased resistance of the target pathogen to treatment.

Aquaculture hurts ocean biodiversity – escapes

[ ] Aquaculture operations are susceptible to fish escapes – this leads to the introduction of invasive species.

World Wildlife Fund 2008
(World Wildlife Fund, 'Aquaculture problems: Fish feed,' Feb 29, http://www.panda.org/about_wwf/what_we_do/marine/problems/aquaculture/fish_feed/index.cfm)

Aquaculture is one of the main ways that foreign marine species - both exotic species and domestic forms of native species - **are introduced to new areas**. **A huge number of farmed fish escape from their pens**. In 2002 for example, more than 630,000 farmed salmon escaped in Norway - more than the total number of spawning wild Atlantic salmon in Norwegian rivers. Farmed rainbow trout, an exotic species not native to the country, have also escaped into Norwegian waters. Like other introduced species, **these escaped farmed species are a serious environmental problem**. **They cause significant disturbances of natural ecosystems, and threaten local wild species** in several ways. For example, **they can compete for food and habitat, displace indigenous species, and interfere with the lifecycles of wild species**. Escaped farmed salmon and rainbow trout in Norwegian rivers, for instance, spawn later than wild salmon and can displace eggs laid by wild salmon. **If the escaped farmed species have a survival advantage over wild species, they can drive local populations to extinction**. **Exotic species** can also **carry diseases or parasites that can be lethal to native species**. In addition, **escaped species that are able to breed with the wild stock can lead to a dilution of the natural gene pool. This can potentially affect the long-term survival and evolution of wild species**.

Aquaculture hurts ocean biodiversity – habitat destruction

[ ] Aquaculture operations are built in locations that are ideal for local fish species – this leads to habitat destruction.

World Wildlife Fund 2008
(World Wildlife Fund, 'Aquaculture problems: Fish feed,' Feb 29, http://www.panda.org/about_wwf/what_we_do/marine/problems/aquaculture/fish_feed/index.cfm)

Aquaculture is in direct competition with natural marine habitats for space. **Fish farms often need the shelter of bays and estuaries to avoid damage from storms and currents**, **so there are a limited number of suitable locations where farms can be established**. In addition, **farmed fish need good water quality**, frequent water exchange, **and other optimal environmental conditions**. Unfortunately, **these locations are also very often ideal for wild fish and other marine life**. **Both terrestrial and aquatic wildlife can lose their habitats through the building and operating of aquaculture facilities and accompanying infrastructure**. For example, some European fish farms have been placed in the migratory routes of wild salmon, while in Asia and Latin America, mangrove forests have been cleared to make space for shrimp farms.

Answers to: Consolidated regulations make aquaculture safe

[ ] Consolidating authority to a single organization won't solve the environmental hazards of aquaculture – the existing regulations aren't strict enough, it doesn't matter who enforces the,

Naylor, Senior Fellow at the Center for Environmental Science and Policy, Stanford University, 2014
(Rosamund, "Environmental Safeguards for Open-Ocean Aquaculture," Online: http://issues.org/22-3/naylor/)

An implicit assumption of the bill **is that** most of the needed **environmental safeguards are** already **in place**. **Additional environmental regulations targeted specifically for offshore aquaculture are to be established in the future "as deemed necessary** or prudent by the secretary" in consultation with other groups. Yet timing is everything. **If the law is passed without the establishment of comprehensive** national **guidelines for the protection of** marine species and **the environment**— **and the requirement that these guidelines be implemented**— **such protection may never happen,** or it may happen after irreversible damages have occurred. **Are current federal laws sufficient to protect the environment in the EEZ?** The answer is **no**. **As a framework, they leave major gaps in environmental protection**.

Aquaculture doesn't address the root cause of food insecurity

[ ] Aquaculture deals with the least threatening contributor to food insecurity – the inability to transport fish regionally, store fish until eating, and afford fish aren't resolved by the affirmative.

Hannah, professor of philosophy at Kwantlen Polytechnic University, 2008
(Bill, "Food Insecurity, Aquaculture, and the Nature of Technology," *University of Alberta Health Law Review*, 16:4, Online: http://www.hli.ualberta.ca/HealthLawJournals/~/media/hli/Publications/HLR/16-4-hannah.pdf)

Food insecurity remains a devastating reality for people across the globe. 1 The problem persists despite multiple, ongoing aid and development programs. **One global program recently offered as a part of the solution for food insecurity is modern aquaculture**.2 Its purported benefits for food insecurity are increased food production, employment, and income. However, there is a perspective that views aquaculture as yet another technofix, doomed to fail as other technofixes have.3 There are those that believe that **aquaculture will not alleviate food insecurity, instead it will further entrench corporate or developed-world control**. **The reasons for the persistence of food insecurity are diverse. The simple explanation, that starvation is simply a matter of supply or production, has been challenged and overcome.** It is now accepted that food supply and production is a factor in causing food insecurity, but that it is not the only, or even the most important factor**. Food insecurity is now mostly explained in terms of availability and access to the food supplies. National access to food trade, regional infrastructure to allow transport, local stores of food remaining secure and most importantly, the ability of households to afford to buy the food, all seem more impactful than production problems on food insecurity**.

Aquaculture drives small fishers out of business

[ ] Industrial aquaculture undermines the small-scale local farms that are most effective at feeding the hungry.

Fisheries and Marine Environment Research Institute, 2012
("Aquaculture and its impacts on small-scale fisheries," *Background paper for the International Conference on Fisheries and Globalization*, September, Online: http://www.scribd.com/doc/112067559/Aquaculture-and-its-impacts-on-small-scale-fisheries)
Intensive or **industrial aquaculture aims to maximize production by applying a high level of technological input on a controlled environment and the management of the entire life cycle of the cultured species**. **This is exemplified by** monoculture of species for export with high value, which are often **carnivorous species requiring manufactured feeds, antibiotics** to prevent diseases in higher stocking densities **and energy dependent resources for a controlled environment.** Consequently, **a considerable amount of investment is needed and it is usually undertaken by large companies.** (Kura, 2004) Extensive and semi-intensive or **rural aquaculture requires simple technology and minimum external inputs** applied only during the adult part of the life cycle of species groups that are lower in the food chain- **These species are herbivores or omnivores that rely on natural food,** allowing for the successful integration of polyculture with agriculture and livestock production like in traditional and artisanal operations. **Despite high yields, its contribution to daily local consumption and local food security is under-appreciated due to the low export value of its products.** (Kura, 2004) **Aquaculture** still **fails to accomplish its major role in ensuring food security due to trade policies that promote an export-oriented industry, to answer the high demand of developed countries for fish to the detriment of** traditional stakeholders in **developing countries,** where majority of aquaculture farms are located. Despite recent technological improvements, **industrialized farmed fish remain dependent on captured fisheries for feeds, further contributing to overfishing. Devastating impacts on the environment are aggravated by the pressure to farm at high densities to maintain or increase productivity, boost growth, answer market demands and maximize profit. Fish workers suffer poor working conditions and small-scale fisherfolk are continuously marginalized**.

Aquaculture operations compete for wild caught fish

[ ] Fish produced in the US would be fed with fish that developing nations depend on to survive, and be sold back to them at inflated prices.

Food and Water Watch, 2010
(Food and Water Watch, "Expansion of Factory Fish Farms in the Ocean May Lead to Food Insecurity in Developing Countries," June 2010, online: http://documents.foodandwaterwatch.org/doc/FeedInsecurity.pdf)

Nearly **one sixth of the world's population is** considered **food insecure**.27 **Meanwhile**, the current **development of the open-ocean aquaculture** industry **in the United States could worsen food insecurity in developing countries by placing an increased demand on** an already dwindling **prey fish population**. Furthermore, **ocean fish farming in the U**nited **S**tates **does not equal more food security for most U.S. consumers** either. **As it is, the U**nited **S**tates **exports over 70 percent of its seafood** to the European Union and Japan, which have higher standards for seafood and are willing to pay more for fish produced with more stringent environmental, health and labor regulations. **Unless trade patterns change**, which is highly unlikely under current regulatory conditions, **most fish farmed offshore in the U**nited **S**tates **would** likely **be shipped abroad, leaving the United States with only the ecological problems**. Already, Kona Kampachi®, a farmed fish from Hawaii, is sold for $17 per pound — far out of the price range of the average U.S. consumer.28 **Expanding U.S. offshore aquaculture simply means more high-end fish available for those who can afford it**. Offshore **aquaculture will not** significantly **increase the supply of quality seafood to U.S. consumers**, **and products will certainly not make their way to developing countries**. Further, **using wild fish to feed farmed fish is an unsustainable practice that depletes forage fish populations, threatens the food security of many people in developing countries, and takes a valuable food source away from people who need it.**

Aquaculture increases fish prices

[ ] US aquaculture operations depend on fish caught in developing countries to function – this increases food prices for people in developing countries who depend on fish to survive.

Food and Water Watch, 2010
(Food and Water Watch, "Expansion of Factory Fish Farms in the Ocean May Lead to Food Insecurity in Developing Countries," June 2010, online: http://documents.foodandwaterwatch.org/doc/FeedInsecurity.pdf)

Given the importance of prey **fish in people's diets**, (as well as for wildlife like larger fish, marine mammals and birds), **it is problematic for people to compete with the global aquaculture industry for access to this resource**. The **increasing demand** for fish feed by the aquaculture industry **has increased the market price of prey fish**, **driving prices** up and **out of reach for people in countries where these fish**, until recently, **were a critical** and typical **part of their diet.** Increasingly, these fish are being diverted to feed carnivorous farmed fish (such as salmon), pigs, poultry and pets in high-income countries.18 Since the late 1970s, per-capita fish supply declined by 3 percent in Africa and 8 percent in South America while consumption of fish in- creased starkly by 28 percent in North and Central Amer- ica during the same decade.19 The **increase in aquaculture** since these statistics were published has **only exacerbated the decline of available fish in lower-income countries**. **Availability of** prey **fish in sub-Saharan Africa**, for example, **is expected to fall** even **further by 2020**, even while pro- duction of fish for export (both wild-caught and farmed) is increasing.20 **Meanwhile, the U**nited **S**tates **imports twice as much fish just to feed livestock as do all the low-income countries combined**.21

Aquaculture spreads disease

[ ] Aquaculture will increase disease spread, which will directly harm global food security.

Walker, Professor of Marine Studies at the University of Queensland, 2004
(Peter, "Disease Emergence and Food Security: Global Impact of Pathogens on Sustainable Aquaculture Production," in Fish, Aquaculture And Food Security: Sustaining Fish As A Food Supply Ed A.G. Brown, Online)

The devastating white spot pandemic and other major disease outbreaks impacting on food secu- rity have been catalysts for profound changes in the structure and operation of the aquaculture in- dustry, and have led governments to address more seriously the issue of aquatic animal disease man- agement. The messages have been clear. **Disease emergence and spread are not** simply **unfortunate natural disasters** that are **beyond our control**. **They are** a **predictable** consequence of the massive so- ciological, ecological and geo-economic changes that have accompanied the development of this new industry. **As aquaculture continues to expand**, evolve and diversify, **new diseases will emerge and**, if we are not adequately prepared, **the consequences will be devastating for food security,** socio-economic development **and trade**. The vast potential for aquaculture development in Africa remains relatively untapped, but will surely be the source of new disease challenges. To meet the challenge of containing disease and ensuring effi- cient and sustainable aquaculture production, we must continue to improve our understanding of aquatic animal pathogens and our diagnostic capa- bilities, improve disease surveillance and emer- gency response capabilities, improve the regulation of trans-boundary movement of aquatic animals and other high-risk commodities, and de- velop improved technologies for low-cost, chemi- cal-free treatments and disease resistance. **To ensure food security** at the level of small-scale farmers, **we must** also **improve education and training** in practical disease management practices that are effective and affordable at the subsistence level.

The US will still import most of its seafood

[ ] The US will still continue to import its seafood – consumers like the imported food because it's cheaper and US companies want to make profits off of exports.

Food & Water Watch, 2008
(Food & Water Watch, "Fish Story: Why Offshore Fish Farming Will Not Break U.S. Dependence on Imported Seafood," March 2008, online: http://documents.foodandwaterwatch.org/doc/FishStoryMarch08.pdf#_ga=1.85102041.1145132685.1402422966)

After a series of safety scares about imported seafood in 2006 and 2007, **U.S. consumers are recognizing that more than 80 percent**, about 10.7 billion pounds **of the seafood they eat, comes from outside the U**nited **S**tates. Much of it is imported from Asia and Latin America, regions that have potentially unsafe production practices. Claiming to have discovered the solution to U.S. reliance on imported seafood, the Bush administration is promoting legislation that would allow federal ocean waters to be leased out for industrial fish farming, also known as offshore aquaculture, open water aquaculture, or open ocean aquaculture.* **Offshore aquaculture involves cramming thousands of** potentially high-value **fish**, such as cobia and cod, **into large cages in U.S. federal waters** – between three† and 200 miles from shore. **These** ocean equivalents of land-based **factory farms** that jam together thousands of pigs, chickens, and cows **could threaten the marine environment, human health, wild fish populations, and local fishermen and coastal communities**. Such **operations can pollute the surrounding** marine **environment with fish waste, excess fish feed, and chemicals**. **Cramped conditions** that cause higher stress than in the wild **can make farmed fish prone to diseases and parasites**, **which would** likely **be treated with antibiotics, pesticides, and other chemicals**. Both the diseases and chemicals can be transmit- ted to wild fish through the open net pens. Wild fish populations can also be harmed when farmed fish escape from their pens and compete with wild fish for resources or interbreed and weaken the wild genetic stock. **Not only is the push for offshore aquaculture reckless, its** purported **benefits are highly questionable**. The administration's campaign for ocean fish farming is blind to the current trends in the global seafood trade. **The U**nited **S**tates **exports more than 70 percent of its** high-quality wild-caught and farmed **seafood**, **while importing cheaper seafood from countries such as China and Thailand,** which have spotty food safety records. Meanwhile, Japan and Europe have high seafood safety standards and receive nearly half of U.S. exports. Following this pattern, **if commercial offshore aquaculture were permit- ted here, producers would most likely export the majority of their fish** for high-dollar returns, and **U.S. consumption of imported seafood would remain largely unaffected**. **Compounding this trend are U.S. companies that export** a significant amount of wild-caught **seafood to China, have it processed** under more lax food safety and labor laws, **and shipped back** the United States. The equivalent of 15 percent of U.S. wild-caught salmon and 12 percent of cod is exported to China unprocessed and then imported back from China, in processed form.

Trade deficits don't hurt the economy

[ ] **The seafood trade deficit is tiny compared to our oil trade deficit – and some seafood production is more efficient overseas.**

Kite-Powell, aquaculture policy analyst at Woods Hole Oceanographic Institute, 2011
(Hauke, "Where Will We Get Our Seafood? Unlike the rest of the world, the U.S. has not embraced aquaculture," *Woods Hole Oceanopgrahic Institute*, September 21, Online: http://www.whoi.edu/oceanus/feature/where-will-we-get-our-seafood)

Kite-Powell: Two key facts were highlighted in the colloquium discussions. First, **the U.S. seafood trade deficit is important to the seafood industry, but it's not a big contributor to our national trade picture—it's swamped by our trade in petroleum and manufactured goods**. **So eliminating the seafood trade deficit is not going to make a noticeable dent in our nation's overall trade situation**. And second, **trade in seafood is not** necessarily **a bad thing. If there are other countries that can produce high-quality seafood much more efficiently than we can, it makes sense for us to buy it from them. There are species that we may not want to grow in large quantities in the U.S.—possibly shrimp,** which comprises a big chunk of our seafood trade deficit. **Shrimp are farmed most efficiently in coastal ponds, and we don't have a lot of spare coastal real estate for ponds in the U.S. So it may not make sense to try to become self-sufficient in shrimp.**

Trade deficits don't hurt the economy

[ ] Trade deficits have nothing to do with economic downturn.

Bier and Osorio, 2011
(David Bier and Ivan Osorio, "Two Cheers For A Big U.S. Trade Deficit," *Forbes*, 9/18/11, online: http://www.forbes.com/sites/realspin/2011/09/18/two-cheers-for-a-big-u-s-trade-deficit/)

But the truth is **there's nothing to fear about trade imbalances**. They only mean more investment in U.S. industries and businesses. **While a "deficit**" in trade **sounds bad**, **no real deficit exists**. **Most** trade **statistics** simply **fail to account for foreign investment**. Foreign investors do not sit on their dollars. If they do not buy American goods and services, they invest in dollar-denominated assets like stocks and bonds, real estate, or even government debt. The **trade deficit has helped the U.S. maintain the highest level of foreign direct investment in the world by far.** In 2010, foreigners invested almost $2.6 trillion in U.S. banks, businesses, real estate and, to a lesser extent, the government — more than 4.5 times the level of foreign investment in China last year. Companies invest this foreign capital in research and development, factories, and workers. This creates new wealth and jobs, driving economic growth and raising living standards. Trade imbalances don't harm the economy. Lower trade deficits have accompanied low levels of economic growth. **During the Great Depression,** for example, t**he U.S. actually ran trade surpluses** every year. By contrast, **real GDP since 1980 grew 3.5 times faster when the deficit rose than when it declined**, as a study by the Cato Institute notes. Over the same period, employment, manufacturing, and the stock market all also increased the fastest alongside a widening trade gap. **Phony fears over trade deficits lead to phony "solutions" that end up doing harm**. Protectionists who harp on trade deficit fears often propose to subsidize exports, restrict imports, or both. These proposals are bad ideas. Tariffs and quotas keep inexpensive foreign goods out, driving up prices for consumers and costs for businesses. In response to the U.S. import restrictions (and domestic price supports) for sugar, for example, candy makers like Hershey and Lifesavers were forced to lay off American workers and move their operations outside the U.S.

Trade deficits are good for the economy

[ ] Trade deficits are statistically related to strong economic growth and manufacturing output.

Griswold, director of trade policy at the CATO Institute, 2005
(Daniel, "Are Trade Deficits Good for the U.S. Economy?" *CATO*, February 15, Online: http://www.cato.org/publications/commentary/are-trade-deficits-good-us-economy)

It may be counterintuitive for many people, but by the most basic measure of economic performance - the change in real GDP - the evidence points to what seems like a perplexing finding. **Years in which the U.S.** current **account deficit** - which largely consists of the trade deficit - **is rising show stronger growth than years in which the current account deficit is shrinking.** Let's first look at those **years where the** current account **deficit shrank**, which - according to conventional wisdom - should be a good thing. But the data says otherwise: In those years since 1980 when the current account deficit declined as a share of GDP, **the economy grew by an annual average of only 1.9%. In contrast, during** those **years in which the current account deficit grew moderately, real GDP grew at an annual average of 3.0%**. More astonishingly yet, **in those years when the U.S. trade deficit "deteriorated**" most rapidly, to borrow another popular characterization, **real GDP grew by a robust annual average of 4.4%**. In other words, growth in those years was more than twice as strong as in years when the deficit was "improving." As a matter of fact, **four of the five best years for U.S. GDP growth since 1980 have occurred in the same years when the U.S. current account deficit increased most rapidly.** The same pattern emerges in the U.S. manufacturing sector. It has become the conventional wisdom that a trade deficit hurts manufacturing activity in the United States, because imports presumably displace domestic production. But the plain evidence of the past quarter century contradicts that general presumption. **U.S. manufacturing output actually declined slightly on average in those years in which the U.S. current account deficit shrank.** In contrast, **manufacturing output grew by 4.1% in years when the current account deficit grew moderately - and by a brisk 5.3% when the deficit grew rapidly**.

Trade deficits are good for the economy

[ ] Trade deficits signals a strong economy, not a weak one – they're an indicator of high employment and high output.

Griswold, director of trade policy at the CATO Institute, 1999
(Daniel, "A Rising Trade Deficit Signals Good Times for U.S. Economy," *CATO Institute*, September, Online: http://www.cato.org/publications/commentary/rising-trade-deficit-signals-good-times-us-economy)

The trade deficit is not the cause of bad things, but the result of good things in our economy. **It reflects an economy ripe with investment opportunities and flush with consumer confidence**. For this reason, **trade deficits tend to** be pro-cyclical, **grow**ing **along with the economy, and shrink**ing **during** times of **recession**. It is no coincidence that America's smallest current account deficit in the last 17 years occurred in the midst of the 1990-91 recession. **A survey of the U.S. economy since 1973**, when the era of floating exchange rates and free capital flows began, only **confirms that rising trade deficits generally signal good times** for the U.S. economy. In the 26 years surveyed, America's current account deficit as a percentage of GDP grew larger (or, in the parlance of the typical news report, "worsened") in 15 of them and shrank (or "improved") in 11. **By almost any measure, America's economy has performed better in years in which the trade deficit rose** compared to years in which it shrank. **During years of rising deficits, the growth of real g**ross **d**omestic **p**roduct **averaged 3.2 percent** per year, **compared to 2.3 percent during years of shrinking deficits**. If trade deficits really are a drag on growth, why does the economy grow so much faster when the trade deficit is getting bigger? On the issue of jobs, the story is much the same. **During** those dark and troubling years of **rising trade deficits, the unemployment rate has, on average fallen by 0.4 percentage points**. During those bright and happy **years of "improving" trade deficits**, **the unemployment rate has**, on average, **jumped 0.4 percentage points**. **In** the politically sensitive sector of **manufacturing, the trade deficit** again **proves to be a companion of better times**. **During** years of **rising deficits**, manufacturing **output grew an average of 4.5 percent a year**. During years of shrinking deficits the average growth rate of manufacturing output fell to 1.4 percent—less than one-third the rate of growth during years of rising deficits.